

**REMARKS****INTRODUCTION:**

In accordance with the foregoing, claims 3 and 15 have been canceled without prejudice or disclaimer, and claims 1, 5, 9, 10, 16, 19, 25 and 26 have been amended. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1-2, 4-12, 14, and 16-26 are pending and under consideration. Reconsideration is respectfully requested.

**ENTRY OF RESPONSE UNDER 37 C.F.R. §1.116:**

Applicants request entry of this Rule 116 Response and Request for Reconsideration because:

(a) at least certain of the rejected claims have been canceled thereby at least reducing the issues for appeal;

(b) it is believed that the amendment of claim 16 as suggested by the Examiner puts this application into condition for allowance;

(c) the amendment was not earlier presented because the Applicants believed in good faith that the cited prior art did not disclose the present invention as previously claimed;

(d) the amendment of claim 16 should not entail any further search by the Examiner since no new features are being added or no new issues are being raised; and/or

(e) the amendment places the application at least into a better form for appeal.

The Manual of Patent Examining Procedures sets forth in §714.12 that "[a]ny amendment that would place the case either in condition for allowance or in better form for appeal may be entered." (Underlining added for emphasis) Moreover, §714.13 sets forth that "[t]he Proposed Amendment should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified." The Manual of Patent Examining Procedures further articulates that the reason for any non-entry should be explained expressly in the Advisory Action.

**REJECTION UNDER 35 U.S.C. §102:**

In the Office Action, at pages 2-3, numbered paragraph 2, claims 1-3, 5-8, 14, 15, 19, 25 and 26 were rejected under 35 U.S.C. §102(b) as being anticipated by Ford (USPN 3,413,866; hereafter, Ford). This rejection is traversed and reconsideration is requested.

Independent claim 1 has been amended to add the terminology: "wherein: the sliding part

comprises a slide protrusion positioned at the pulley fixing part; and the frame has an L-shaped protrusion guide hole positioned to support, receive and guide a projection of the slide protrusion,” and claim 3 has been canceled without prejudice or disclaimer. Independent claims 19, 25 and 26 have been amended in similar fashion. Claim 5 has been amended to update antecedent basis. Claim 15 has been canceled without prejudice or disclaimer.

It is respectfully submitted that Ford discloses (see claim 1):

In a device for maintaining tension on a driven belt between a prime mover and a driven mechanism, an extensible mounting for an idler pulley, engageable with said belt, in combination with said idler pulley, a stationary tubular member rectangular tubular member rectangular in transverse section, supported in operative association with said belt comprising a sleeve having a longitudinal slot in one of its sides, a second tubular extensible member, rectangular in transverse section, telescopically received in said sleeve at one end and having a shaft extending at right-angles therefrom at its opposite end, the said extensible member having a pin at its inner end and extending through the slot in said sleeve, the said idler pulley being rotatively mounted on said shaft and engageable with said belt, a pin on the outer end of said extensible member, and a pull spring connecting said pins whereby to bias said extensible member longitudinally of said sleeve and toward said belt, the said extensible member having a dimension substantially less than the internal dimension of said sleeve whereby said extensible member is subjected to axial disalignment therewith and to fractional engagement with opposing sides thereof. (emphasis added)

That is, Ford teaches an interconnected arrangement of three pulleys (a prime mover pulley, a driven mechanism pulley, and an idler pulley)(see, e.g., Ford, FIGs. 2 and 11) wherein the idler pulley is controlled by a stationary tubular member, a second tubular extensible member and a pull spring, in contrast to the present claimed invention, which utilizes only two pulleys (a driving pulley and a driven pulley). Ford does not teach or suggest “A pulley fixing apparatus for an image forming apparatus including a frame, a driving motor, and a power-transmitting belt driven by the driving motor and a driving pulley, the pulley fixing apparatus comprising: a pulley fixing part rotatably fixing a driven pulley on the frame; a sliding part movably supporting the pulley fixing part on the frame; and an automatic tension adjusting part including an elastic pulling spring disposed between the pulley fixing part and the frame to elastically bias the pulley fixing part in a first direction and impart a predetermined tension to the power-transmitting belt, wherein: the pulley fixing part comprises a first fixing portion; the frame comprises a second fixing portion arranged between the first fixing portion and the driven pulley; and the elastic pulling spring has one end fixed at the first fixing portion and another end fixed at the second fixing portion to push the driven pulley outwardly from the second fixing portion of the frame, wherein: the sliding part comprises a slide protrusion positioned at the pulley fixing part; and the frame has an L-shaped protrusion guide hole positioned to support, receive and guide a projection of the slide protrusion,” as is recited in amended claim 1, and similarly in amended

independent claims 19, 25 and 26, of the present invention.

Thus, Applicants respectfully disagree with the Examiner's description of Ford. An idler pulley is defined by Merriam-Webster Online as "a guide or tightening pulley for a belt or chain." A driven pulley is known to those skilled in the art as a pulley generally attached to a driven shaft and coupled to a drive pulley by a drive belt, wherein the drive belt is stretched between the drive pulley and the driven pulley so as to transmit the rotation of the drive pulley to the driven pulley to provide rotation to the driven shaft. An idler pulley does not include a driven shaft.

Ford discloses three pulleys: a driving pulley (10), a driven pulley (15) and an idler pulley (25), that work in concert. The pulley fixing part of Ford (23, 22) includes a shank 22 that is capable of some lateral inclinations, therein, as shown in FIGURES 6, 7, and 9 and an internally threaded boss 23 that is welded to the outer end of the member 22 to threadedly receive the inner end of a bolt 24 which functions as a shaft for the idler pulley 25 (see Ford, col. 2, lines 61-66). Hence, it is respectfully submitted that the pulley fixing part (23, 22) of Ford is not "rotatably fixing a driven pulley (25)," as is submitted by the Examiner.

The elastic pulling spring (29) of Ford is "a pull spring 29 is attached at each end to the respective pins 27 and 28, as shown in FIGURES 5 and 6, capable of biasing the shank 22 within the member 18 toward the center and thus causing the pulley 25 to move outwardly against the belt 14, in the manner shown in FIGURE 6, whereupon the inner element 22 is disaligned within the sleeve 18, and under the tension applied to the belt 14, frictionally engages the inner walls of the sleeve 18 at a and b in the manner shown in FIGURE 6, assuming a rigid position until slack occurs in the belt 14" (emphasis added) (Ford, col. 3, lines 1-12). Ford discloses: "Yet another object of the invention is in the provision of an assembly which involves the utilization of a spring for extending an idler pulley to engage the belt on its slackened side while providing frictional means by which the idler pulley is restrained from yielding under the tension applied to the belt while the latter is in motion" (emphasis added). Hence, Ford does not disclose that the pulling spring is disposed between the pulley fixing part and the frame, but rather discloses that the pulling spring is disposed between pins that bias the shank 22 toward the center of sleeve 18 to cause pulley 25 (the idling pulley) to tighten the belt (i.e., to push the idler pulley 25 outwardly against the belt). In contrast, in independent claim 1 (and similarly in independent claims 19, 25 and 26) of the present invention, the pulling spring is disposed between the pulley fixing part and the frame, the pulley fixing part comprises a first fixing portion, the frame comprises a second fixing portion arranged between the first fixing portion and the driven pulley, the elastic pulling spring has one end fixed at the first fixing portion and another end fixed at the second fixing portion to push the driven pulley outwardly from the second fixing portion of the frame.

In addition, in amended independent claims 1, 19 25 and 26 of the present invention, the

sliding part comprises a slide protrusion positioned at the pulley fixing part; and the frame has an L-shaped protrusion guide hole positioned to support, receive and guide a projection of the slide protrusion, which is not taught or suggested by Ford.

Hence, it is respectfully submitted that Ford discloses a the pulley system having different components, that is not arranged in the same way as the pulley system of amended independent claims 1, 19, 25 and 26 of the present claimed invention, and that performs differently from the pulley system of amended independent claims 1, 19, 25 and 26 of the present claimed invention.

Thus, it is respectfully submitted that amended independent claims 1, 19, 25 and 26 of the present invention are not anticipated under 35 U.S.C. §102(b) by Ford (USPN 3,413,866). Since claims 2-3, 5-8, and 14 depend from amended independent claim 1 of the present invention, claims 2-3, 5-8, and 14 are not anticipated under 35 U.S.C. §102(b) by Ford (USPN 3,413,866) for at least the reasons that amended independent claim 1 of the present invention is not anticipated under 35 U.S.C. §102(b) by Ford (USPN 3,413,866).

#### **REJECTION UNDER 35 U.S.C. §103:**

A. In the Office Action, at pages 4-5, numbered paragraph 4, claims 4 and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ford (USPN 3,413,866; hereafter, Ford) in view of Holbrook (USPN 4,969,859; hereafter, Holbrook). The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

Independent claims 1 and 19 have been amended (see above).

It is respectfully submitted that in rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S.1,17,148 USPQ 459, 467 (1966). The examiner must articulate reasons for the examiner's decision. In re Lee, 277 F.3d 1338, 1342, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002). In particular, the examiner must show that there is a teaching, motivation, or suggestion of a motivation to combine references relied on as evidence of obviousness. *Id.* at 1343, 61 USPQ2d at 1433-34. The examiner cannot simply reach conclusions based on the examiner's own understanding or experience - or on his or her assessment of what would be basic knowledge or common sense. Rather, the examiner must point to some concrete evidence in the record in support of these findings. In re Zurko, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). Thus, the Examiner must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to

support the Examiner's conclusion.

As noted above, it is respectfully submitted that amended independent claims 1 and 19 are not disclosed by Ford. The pulley system of Ford requires the use of three pulleys, wherein an idle pulley is utilized as a tightening pulley for a belt. Nowhere in Ford is there a teaching or suggestion of utilizing two pulleys, that is, a drive pulley and a driven pulley alone, without an idle pulley, in the manner disclosed by amended independent claims 1 and 19 of the present invention.

The Examiner admits that Ford does not disclose the sliding part comprising first, second, third, and fourth slide protrusions positioned at the pulley fixing part; and the frame has corresponding first, second, third, and fourth protrusion guide holes positioned to receive and guide the respective slide protrusions, as is recited in claim 4 of the present invention. In addition, the Examiner admits that Ford does not disclose the locking part comprising an elongated adjusting-guide with a long axis oriented at the pulley fixing part along the direction in which the pulley fixing part is elastically urged, a threaded hole positioned at the frame to correspond to the elongated adjusting-guide hole; and a locking screw engaging the threaded hole through the elongated adjusting-guide hole, as is recited in claim 20 of the present invention.

It appears that the Examiner is simply reaching conclusions based on the Examiner's own understanding or experience - or on her assessment of what would be basic knowledge or common sense. As noted above, the Examiner must point to some concrete evidence in the record in support of these findings, which she has not done. Hence, it is respectfully submitted that the Examiner did not establish a proper motivation to combine the references, the level of skill in the art would not have suggested to one of ordinary skill in the art obviousness of the present invention as set forth in the claims, and the Examiner has not established a *prima facie* case of obviousness.

Since Ford discloses a three pulley system utilizing a driving pulley (10), a driven pulley (15) and an idler pulley (25), that work in concert, even if Ford were to be combined with Holbrook, the combination would not teach or suggest the two pulley system of independent claims 1 and 19 of the present invention.

Holbrook discloses rectangular slots (see FIG. 1, Holbrook), in contrast to the L-shaped slots of amended claims 1 and 19 of the present invention, wherein L-shaped slots are positioned to support, receive and guide a projection of the slide protrusion.

Hence, amended claims 1 and 19 of the present invention are submitted to be patentable under 35 U.S.C. §103(a) over Ford (USPN 3,413,866) in view of Holbrook (USPN 4,969,859).

Since claims 4 and 20 depend from independent claims 1 and 19, respectively, claims 4 and 20 are patentable under 35 U.S.C. §103(a) over Ford (USPN 3,413,866) in view of Holbrook (USPN 4,969,859) for at least the reasons independent claims 1 and 19 are patentable under 35 U.S.C. §103(a) over Ford (USPN 3,413,866) in view of Holbrook (USPN 4,969,859).

**B.** In the Office Action, at pages 5-6, numbered paragraph 5, claims 21-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ford (USPN 3,413,866; hereafter, Ford) in view of Holbrook (USPN 4,969,859; hereafter, Holbrook) and Burgoon (USPN 5,141,083; hereafter, Burgoon). The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

Independent claim 19 has been amended (see above).

Burgoon teaches a brake pad for a disc brake system. The Examiner does not explain a motivation to combine a brake pad with a disc brake system with the pulley system of Ford and the belt tensioning apparatus of Holbrook. As noted above, it again appears that the Examiner is simply reaching conclusions based on the Examiner's own understanding or experience - or on her assessment of what would be basic knowledge or common sense. As noted above, the Examiner must point to some concrete evidence in the record in support of these findings, which she has not done. Hence, it is respectfully submitted that the Examiner did not establish a proper motivation to combine the references, the level of skill in the art would not have suggested to one of ordinary skill in the art obviousness of the present invention as set forth in the claims, and the Examiner has not established a *prima facie* case of obviousness.

Since Ford discloses a three pulley system utilizing a driving pulley (10), a driven pulley (15) and an idler pulley (25), that work in concert, even if Ford were to be combined with Holbrook and Burgoon, the combination would not teach or suggest the two pulley system of amended independent claim 19 of the present invention.

Holbrook discloses rectangular slots (see FIG. 1, Holbrook), in contrast to the L-shaped slots of amended claims 1 and 19 of the present invention, wherein L-shaped slots are positioned to support, receive and guide a projection of the slide protrusion.

Thus, it is respectfully submitted that amended independent claim 19 is patentable under 35 U.S.C. §103(a) over Ford (USPN 3,413,866) in view of Holbrook (USPN 4,969,859) and Burgoon (USPN 5,141,083). Since claims 21-24 depend from amended independent claim 19 of the present invention, claims 21-24 are patentable under 35 U.S.C. §103(a) over Ford (USPN 3,413,866) in view of Holbrook (USPN 4,969,859) and Burgoon (USPN 5,141,083) for at least the reasons amended independent claim 19 of the present invention is patentable under 35 U.S.C. §103(a) over Ford (USPN 3,413,866) in view of Holbrook (USPN 4,969,859) and

Burgoon (USPN 5,141,083).

**ALLOWABLE SUBJECT MATTER:**

In the Office Action, at page 6, numbered paragraph 6, claims 9-12 and 16-18 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants thank the Examiner for her careful review of the claims.

However, in view of the above arguments, claims 9-12 are submitted to be in allowable form.

Claim 16 has been amended to include the features of claims 1 and 15. Claim 15 has been canceled without prejudice or disclaimer. Hence, in accordance with the Examiner's suggestion, claim 16 is submitted to be in allowable form.

Since claims 17 and 18 are independent claims, it is respectfully submitted that the Examiner has allowed claims 17 and 18.

**RESPONSE TO ARGUMENTS:**

In view of the above amendments, the Examiner's concerns are submitted to be overcome.

**CONCLUSION:**

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited. At a minimum, this Amendment should be entered at least for purposes of Appeal as it either clarifies and/or narrows the issues for consideration by the Board.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited and possibly concluded by the Examiner contacting the undersigned attorney for a telephone interview to discuss any such remaining issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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Date: March 13, 2007

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